

Amendments to the Drawings:

Replacement sheets for FIGS. 1-4D are enclosed which formalize the drawings that were submitted with the application. No other changes have been made. Formal drawings are submitted herewith under separate Letter to the Official Draftsperson. Approval by the Examiner is respectfully requested.

REMARKS

Formal drawings are submitted herewith under separate Letter to the Official Draftsperson. Approval by the Examiner is respectfully requested.

Claims 1-4 and 10 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,130,485. Applicants submit herewith a Terminal Disclaimer disclaiming any portion of a patent issuing on the present invention that would extend beyond the terms of U.S. Patent No. 7,130,485. The Terminal Disclaimer is believed to overcome this rejection.

By this amendment, claim 1 has been amended to indicate that the tone scale function $T(x)$ is compressive and expansive. Element a of claim 1 has been changed to set forth the first composite function is $T_1(x)$, the second composite function is $T_2(x)$, and the tone scale function $T(x)$ is substantially equal to $T_2(T_1(x))$, wherein x is a pixel value. Claim 1 has also been amended to correct a grammatical error.

Claim 2 was rejected under 35 U.S.C. § 112, second paragraph. This rejection has been made moot by the cancellation of this claim.

Claim 8 is rejected under 35 U.S.C. § 112, second paragraph. Claim 8 has been amended to clarify its language.

Claims 10 and 11 are rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter.

Claims 2, 10 and 11 have been cancelled.

Claims 3 and 4 have been amended to more clearly set forth the invention. Independent claim 5 has also been amended to indicate that the tone scale function is both compressive and expansive, and further to indicate that there is a decomposition of the tone scale function into at least two composite functions, the first being compressive, and the second being expansive.

New claims 12 and 13 have been added.

Claims 1, 5 and 6 were rejected under 35 U.S.C. § 102(e) as being anticipated by Shaw et al. (US 6,792,160 B2). Claims 3, 4, 8, 9 and 11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shaw (US Pat. No. 6,792,160 B2) in view of Lee (US Pat. No. 6,285,798 B1).

An important feature of all of the independent claims in this case is that the tone scale function is decomposed into two functions that are then sequentially applied to the image data. The Examiner has taken Official Notice that any function can be broken into two parts, i.e. by linear decomposition. Although it is true that functions can be decomposed, there is no suggestion in Shaw that his functions that he sequentially applies were in fact decomposed from a single function. Mathematically, this can be stated as $T(x) = T1(x) + T2(x)$. That is not what is being done in this claim or in any other independent claims in this case.

In all of the independent claims in this case, there is a tone scale function that is both compressive and expansive in nature. In element a in claims 1, 5, and 13, this tone scale function $T(x)$ is decomposed into first and second components wherein these two components have different mathematical properties and when these two components are applied sequentially, the net effect of having applied the original tone scale function $T(x)$. Mathematically, this is stated in the claim as $T2(T1(x))$ is substantially equal to $T(x)$.

Shaw does sequentially apply two functions, but these functions are not decomposed from a single function. Furthermore, he doesn't have a function with both expansive and compressive properties. Shaw depicts linear curves except for Fig. 4 a which has a linear upward sloping line terminating in a straight line portion. Clearly, Shaw never recognized or provided any motivation to one skilled in the art that a function with expansive and compressive properties can be decomposed as required by all of the independent claims in this case.

Turning now to Lee, it is true that Lee discloses a single function having shadow and highlight portions. In this regard, Lee discloses a single tone scale function that has both expansive or compressive properties however, there is nothing in Lee that would suggest that this function can be decomposed as required by all of the independent claims in this case. Since Lee directly uses this function, he in effect teaches away from this function. Applicants can find no reason for combining Lee with Shaw.

In view of the forgoing, it is believed that neither Shaw or Lee taken singly or in combination, disclose suggest or provide any motivation for the decomposition feature discussed above.

The Examiner's attention is drawn to claim 5 which further requires that the first decomposed function is applied with a tone scale applicator with a spatial filter. New claim 12 requires that the second composite function is applied with a second spatial filter. New claim 13 requires that the first composition function is expansive and is applied with spatial filter. None of these features are disclosed or suggested by the cited art.

It is now believed that all of the independent claims set forth unobvious subject matter. The remaining claims are dependent in format and should be allowed along with their corresponding independent claim.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Raymond L. Owens', is written over a horizontal line.

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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.